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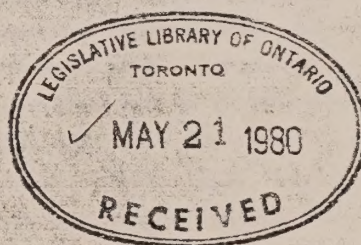
A STUDY OF

★ **HOLLAND MARSH**

ITS RECLAMATION AND DEVELOPMENT

AUGUST, 1949

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Prepared by: EVELYN BROWNELL AND S. GORDON SCOTT

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ONTARIO

COLONEL THE HONOURABLE WM. GRIESINGER, MINISTER



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HOLLAND MARSH

ITS RECLAMATION AND DEVELOPMENT

INTRODUCTION

"A mere ditch swarming with bullfrogs and water snakes," John Galt of the Canada Company wrote when he first glimpsed the Holland Marsh area in 1825. Today, this "mere ditch", consists of 7,000 acres of fertile marsh land valued at from \$600.00 to \$800.00 an acre, which will produce in 1949 a crop with an estimated sales value of \$5,500,000. This is greater than the 1948 production value of either the Lakeshore, Wright-Hargreaves or Kerr-Addison Mines. The story of this remarkable transition is one of great vision, enterprise and endless labour.

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Holland Marsh is the river valley of the Holland and Schomberg rivers which flow into Lake Simcoe about fifty miles north of Toronto. The name "Holland Marsh" is not attributable to the extensive settlement of Netherlands farmers in the area, but it takes its designation from Major S. Holland, the first Surveyor General of Upper Canada. Contrary to popular opinion, that section visible from Number 11 Highway is part of the village of Bradford and is only a small part of Holland Marsh, which in its entirety comprises about 20,000 acres. As indicated on the attached maps there are two distinct divisions in the Holland Marsh. Section I of this study applies to the 7,000 acres south-west of the Canadian National Railway line and Number 11 Highway, which have been reclaimed and which will be referred to as the "Marsh". Section II refers to the undeveloped "New Marsh", 13,000 acres in extent, which lies north-east of the Highway.

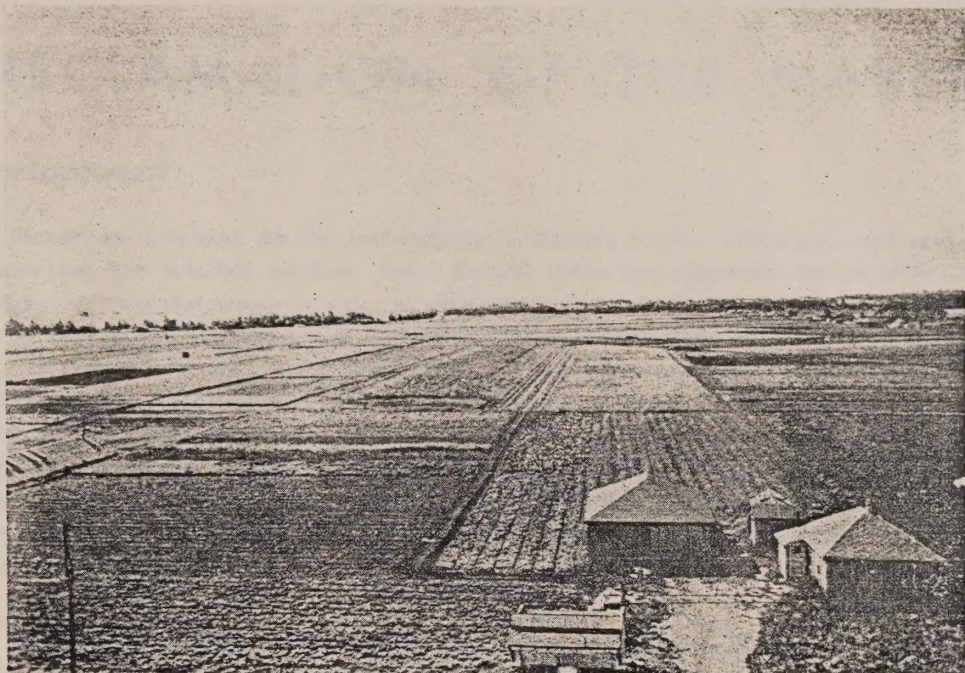
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This is the story of the reclamation of Holland Marsh, the problems that confronted the pioneers in the development, the legislation that was passed to overcome the difficulties, the problems which still exist and most important of all, the story of the remarkable success of the reclamation, as well as its possibilities for the future.

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Miss E. Brown

Photograph — Department of Planning and Development.



This is the "Marsh". Visible from No. 11 highway, this small section is only the beginning of the fertile reclaimed area spreading nine miles to the south-west.

Photograph — Department of Planning and Development.



A view of the main drainage canal, showing on the left the dike embankment of earth with the road along its top; all of which encompasses the perimeter of the Marsh.



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THE RECLAMATION OF THE MARSH

Early Development

Marshreed stimulated the first real industry on Holland Marsh. Twisted into reed cord, it became the first saleable product. Later, several authorities suggested the possibility of partially draining the swamp in order to claim the peat for fuel purposes. Records indicate that in 1852 it was suggested that Holland Marsh be reclaimed by lowering the Washaga outlet of Lake Couchiching, thereby dropping by 4 feet the water levels in Lake Simcoe and the Holland River. Opposition from the towns bordering Lake Simcoe forced the abandonment of this scheme. However, it was not until the 20th century that an enterprising young Scott, N. D. Watson, really sparked the development of Holland Marsh. As a grocer in Bradford, he became convinced that the Marsh's agricultural potential was great and he persuaded Professor W. H. Day, a lecturer in physics at The Ontario Agricultural College, Guelph, to investigate its possibilities.

In 1912 Professor W. H. Day formed a syndicate including Mr. D. Paul Monroe, later M.P.P., for South Wellington and Judge R. L. McKinnon of Guelph, and this syndicate purchased 4,000 acres in the swamp. The prime mover for the development of the Marsh, Professor Day advocated the drainage scheme for agricultural purposes and advised that the Government had made provision for such development under The Municipal Drainage Act. He made tests with piles of marsh soil and found it remarkably free from acid. Celery, lettuce, onions, potatoes, pumpkins, beans and even oats grew to perfection. However, with World War I and the subsequent depression it was not until 1924 that serious steps were taken to implement Day's plan.

Drainage — Legal Aspects

In 1924, on petition of over two-thirds of the landowners in West Gwillimbury, the township council passed a by-law approving the scheme of draining the Marsh. The village of Bradford also passed a similar by-law and a petition for the project was forwarded to the Provincial Government. The Township of King did not subscribe to the scheme and appealed against it, but when the Drainage Referee of the Province of Ontario found the scheme sound under The Municipal Drainage Act of 1910, the Township of King was forced to co-operate and assessed its landholders for this purpose. The actual reclamation started in 1925, but lack of a co-ordinated plan and lack of expert direction prevented its being reasonably near completion until 1930. Because of this haphazard development, in 1929, many of the marsh landowners, being thoroughly dissatisfied with the way in which their interests were being promoted, formed a Marsh Land Owners Association in order that they might make their wishes known to the municipalities. With Professor Day as its President, the Association suggested the formation of a Holland Marsh Drainage Commission with full power under The Municipal Drainage Act to manage the Drainage Scheme. The municipalities passed by-laws to this effect and the first commission was comprised of the Reeves of the three municipalities. Later on, this commission was broadened to include Mr. P. Verkaik, Mr. G. Horling and Mr. C. Davis, who still remain as the largest landowners on the marsh.

In order to understand the means of financing the drainage of Holland Marsh and also to comprehend future litigation, it is necessary to refer to The Municipal Drainage Act (1910, Revised 1914-37). The Act prescribes that two-thirds of the owners of the land within the area must approve the plan — Municipal Drainage Act 2 (3):

"The provisions of this Act shall apply and extend to every case where the drainage work can only be effectually executed by embanking, pumping or other mechanical operation, but in every such case the Municipal Council shall not proceed except when upon the petition of at least two-thirds of the owners of lands within the area described according to subsection 2."

The actual cost of the project was paid by the landowners benefitting by the drainage as assessed on an acreage basis, while the municipalities guaranteed debentures. However, under the Provincial Aid to Drainage Act (1910, revised 1914-37), the Province can and did supply financial assistance. Chapter 70, Section 2 (b) provides:

"For any work for the purpose of rendering more effective a drainage work by embanking or pumping or other mechanical means where the cost of such work including the cost of all pumping machinery installed exceeds the sum of \$10,000.00."

Drainage — Engineering Aspects

The original contract was given to the firm of Cummins and Robinson, 70 Lombard Street, Toronto. From an engineering standpoint, the problem was to create an inverted island, i.e., an area roughly 9 miles by 2 miles and lower than the natural water level. A large scow was brought in to commence drainage operations in 1925. Around the entire marsh above the narrows, as shown on the attached map, a canal 17½ miles long and 7 feet in depth was dredged. All the natural drainage from the head waters of the Schomberg River and from the side hills is caught by this canal and carried around and past the Marsh. Then the earth from the canal was thrown up to form a dike embankment wide enough for a roadbed. In order to drain the water from the land inside of these dikes, open ditches (approximately 6 feet deep and 2 feet wide), were dug, usually along the property boundaries connecting with the old river bed. Eventually, there were 400 of these sub-channels. Across the narrows and connecting the dikes a dam 450 feet long was constructed to hold back the waters of Lake Simcoe. Pumps were installed on the dam to pump the water from the river into the main canal and these now control the water level in wet seasons; in dry seasons, the Marsh is irrigated by siphoning or pumping water into the ditches from the drainage canal.

Numerous technical difficulties were encountered in the reclamation. The most serious of these were the dike cave-ins and scow groundings. Finally, it was decided to consult a Dutch expert suggested by the Netherlands Government who was a specialist in this unique field of engineering.

Today certain drainage inadequacies still harass the growers. For example in one section of the West Gwillimbury area, precautions were not taken to face the dike with clay and as a result water seeps through the dike soaking a valuable section of land. This year additional pumps are being installed in the south-west section of the Marsh. This has been found necessary because the south-west area is higher than that to the north-east and when the level of the water-table is such that the higher section has an adequate water supply, the lower north-east plots are partially flooded.

In the future some thought might be given to the advisability of straightening the Schomberg riverbed to shorten the length of the river which must be dredged periodically.

Although Section 86 of The Municipal Drainage Act provides for a Drainage Commission to operate and maintain the drainage scheme, in actual fact this Commission is limited to being an advisory body to the initiating township, West Gwillimbury, which solely appoints the members of the Commission. In effect, this means that there is virtually no competent authoritative body to manage and direct the practical operation of the drainage scheme, such as control the water levels, regulate irrigation and supervise ditch cleaning.

Another defect in the present arrangement is that although the Commission is composed of men vitally concerned with the drainage operation, it can only spend up to \$800.00 on its own initiative and beyond this an engineer's report must be prepared and the expenditure supported by a township by-law. A serious emergency such as a break in the dike could result in the Marsh being immediately submerged under four feet of water, which would stop all production for more than a year. It is imperative that the Commission should have authority to meet any emergency and have at its disposal and under its control a reserve fund to use as deemed advisable.

It would appear that the Commission should include some representatives democratically elected by the growers themselves. Its administrative authority over the operation of the drainage scheme should be enlarged and clearly defined. Finally, it should have authority to retain the full time services of a competent drainage engineer, with specialized knowledge of the Marsh's drainage system, who is always available to handle day to day drainage problems as well as emergencies.

Township and Tax Difficulties

In 1932, Clifford Case, Progressive Conservative member for North York charged that the syndicate formed by Professor W. H. Day obtained sanction for the Holland Marsh Drainage Scheme by submitting to the townships concerned a petition in which many of the petitioners were not landowners. It must be remembered that under The Municipal Drainage Act, two-thirds of the landowners had to support the project. It was charged that these men securing 4,000 acres at prices from \$2.00 to \$6.00 an acre had hoped to realize a giant real estate scheme worth a million dollars. The townships also charged that the syndicate was \$30,000.00 in arrears in taxes. Professor Day, in answering these charges, stated that the syndicate was in arrears of taxes only to West Gwillimbury and this because West Gwillimbury had not lived up to its obligations in respect to reclamation. The evidence in this litigation was confused and as the original petition had been lost, Judge C. H. Widdifield who was conducting the probe, dismissed the case in March of 1932. However, because of the arrears of taxes, much of the syndicate's land was transferred to the township of West Gwillimbury.

There is one clear conclusion that may be drawn from this confused affair. Manipulative speculation was not proven in this case, but it was all too clearly shown in developments of this nature and magnitude, that some supervision by an impartial land-controlling authority is essential.

During the early years while the land was being made productive, the growers were hard-pressed to clear enough profit to meet their tax assessments. Considerable difficulty had also arisen because the tax records were inaccurate and confused. It was alleged that monies raised by debentures for financing drainage works were in fact not used for that purpose, but diverted by the townships and used for other expenditures. There were several lawsuits where judgments were given in favour of growers who held that they were wrongly taxed under the assessments fixed by the drainage engineer to offset the costs of debentures, when actually the money had not been spent by the township on drainage works for the benefit of their property. The whole tax position became so obscure that both the growers and the townships were in some cases unable to determine the extent of their tax liabilities.

To clarify the whole tax picture, the Province of Ontario, in 1939 passed The Township of King Act confirming the township's authority to adjust its tax rates and to seize land where taxes were three years in arrears. A similar Act applying to West Gwillimbury was passed in 1941.

POPULATION AND LIVING CONDITIONS

The reclaimed Marsh was at first mainly farmed by Canadian born farmers. However by 1934, the early dreams of easy wealth faded and many of the original workers were giving up the struggle. Plot after plot was deserted and others were taken for arrears in taxes.

In 1931, some farmers from Holland had come to the Marsh and these had achieved a relatively great success. One man, Mr. J. J. Snor, Canadian Representative of the Netherlands Emigration Foundation saw in the Marsh a chance for Dutch settlers who had failed elsewhere in Ontario and in 1934, eighteen families then on relief rolls, were moved in from the Hamilton-Toronto area. Each family was given \$600.00 — this outlay to be borne equally by the Federal Government, Provincial Government and the local municipalities. Ultimately these Dutch families were to repay \$475.00 of the original \$600.00. When the municipal government was unable to give its share Mr. Snor appealed to the Dutch Government who supplied this \$200.00 portion. These families formed the nucleus of the present Dutch village of Ansnorveld.

Population Today

Today, more than one-third of the 500 growers on the Marsh are of Dutch origin. In 1948 the Immigration Branch of the Province of Ontario settled numerous Netherlands families in the area. There are also East Europeans, Italians and Germans, as well as a few Japanese. The lack of Anglo-Saxon names on the Marsh is most noticeable and significant.

Why did a large proportion of the Canadian-born settlers fail while the Dutch and other non-British stock have succeeded? The answer seems to be that the latter are used to working on farms where soil is counted in inches and not in acres. Moreover, they are prepared to work the long hours necessary for successful marsh farming. They fully realize the need for keeping all the water channels clean, the importance of specialized machinery, and the necessity for restorative fertilizers. The Marsh has clearly shown the need for a selected type of settler to work reclaimed marsh land.

The many national groups living on the Marsh, the highly competitive nature of the work as well as the on-the-hour marketing necessary in selling the highly perishable crops, have engendered a spirit of individualism rather than one of friendly co-operation for the good of all. This spirit is slowly being worn down, but many of the benefits of full co-operation among the growers are yet to be realized.

Living Conditions

Living conditions on the Marsh could be much improved. Because production is mainly confined to eight months of the year, there is a large floating population and this is particularly true of the West Gwillimbury area. Such a floating population tends to produce poor housing standards and many of the dwellings are suitable for summer occupancy only. Undoubtedly the living standards of the Dutch are the highest on the Marsh. Most of these live in King township and since they live there all-year-round, their housing is better and they have invested their assets in the community and have built a school, a church and stores.

It is undeniable that the whole marsh area lacks many of the conveniences which are rapidly being accepted as necessities in other areas. Because of the small holdings, the area has a higher density of population than other rural areas, yet sanitation and indoor water facilities are lacking. Telephone and hydro services could be extended and shopping facilities are limited.

The marsh owners are fortunate in having an abundance of drinking water from artesian wells. The wells are drilled to a depth of between 200 and 300 feet and they flow freely at a height of 5 feet above the level of the canals. These wells make living on the Marsh possible and the growers should conserve their good fortune by controlling the location and size of new wells and the rate of flow from the old ones.

It is regrettable that in some areas small groves of trees were not preserved. Planting of trees and bushes along the roads would make windbreaks and provide cover for birds as well as give some variety to the landscape. The Marsh "grewed like Topsy", and today although community improvement is desirable, the cost will be considerable, whereas these improvements could have been integrated into a comprehensive overall community plan.

Education

There are two schools on the Marsh. S.S. No. 26 King, erected in 1935, is a regular public school teaching in accordance with the Ontario Public School curriculum. As such it can claim a legislative grant from the Province. Section 6A of "Regulations, General Legislative Grants," provides for such an assessment area:

"A grant equal to 45% of the approved cost."

In 1943 some of the Dutch established the Christian Reform Church School in Ansnorveld. Since the school is not supervised by the Department of Education, it is not eligible for financial assistance and the costs are borne by the church members. However, friendly relations exist between it and the public school and good standards are maintained.

With the increasing population on the Marsh, there is developing an urgent need for a high school. At present secondary education is obtained in Bradford, Newmarket or Aurora, but it is becoming increasingly evident that some total community planning will have to produce a secondary school on the Marsh.

ROADS

From the very beginning of the development, roads became one of the most serious problems confronting the growers. The road pattern in the Marsh was complicated by three main factors. First of all, the road on the top of the dike embankment which follows the interior perimeter of the drainage canal surrounding the area; secondly, the original land surveys of the area which were made in 1819 and 1852, and thirdly the layout of the drainage scheme, including the Schomberg river, the drainage canal, and the interior ditches. Some of the difficulties which have arisen had their origin in the fact that the service roads were laid in accordance with the land surveys and follow the old concession lines, rather than in co-ordination with the layout of the drainage scheme. In some locations this pattern has been satisfactory. In other locations, if the service roads had been built to run at right angles to the dike roads, with a ditch on either side, it would have promoted better road drainage, permitted most of the travelling to be done along the dike roads (which are the driest), and shortened the travelling distances within the interior of the area. This plan would also have reduced the maintenance costs and would have rendered the roads usable without injury earlier in the spring.

Intense cultivation of the land produces a heavy crop of highly perishable vegetables. From the growers' point of view, it was imperative that there should be reasonably good roads over which this produce could be quickly transported to the big markets, and over which supplies could reach the growers. However, owing to the road plan, the heavy traffic and the soft nature of the sub-soil, the construction and maintenance of these roads were extraordinarily extensive. This meant that too large a proportion of the taxes raised from the township as a whole was being spent on the relatively small marsh area. Soon the farmers on the high lands protested bitterly to their respective townships saying that it was most unfair that the extraordinary burden of the building and maintenance of the Marsh roads should be borne by the general taxpayers, not resident on the development. Successive deputations came to the Ontario Government protesting against this unjust tax situation and considerable hard feeling developed against the Marsh residents.

The only fair solution seemed to involve a special levy on the growers who benefitted by the road outlay. However, the townships of King and West Gwillimbury were confronted with a dilemma. The Highway Improvement Act, R.S.O., 1937, Chapter 56 (2) provides that:

"Upon receipt of such statement, declaration and petition and the approval thereof by the proper officer of the Department, the Minister may direct payment to the county treasurer out of the Fund of an amount equal to fifty per centum, or in the case of a bridge or culvert an amount not exceeding seventy-five per centum of the amount of the expenditure which is properly chargeable to road improvement and in all cases of doubt or dispute the decision of the Minister shall be final."

In plain language the Province can give the townships a rebate of 50% or over on road improvements. However, the Act also states in Section 19 that:

"No expenditure towards which a special contribution has been or may be made from any source shall be included in a statement submitted under Section 18, except with the consent of the Minister."

If the township made a special tax levy on the Marsh growers, they became ineligible for the road grant with respect to this special assessment. In 1941 the townships tried to circumvent this difficulty by arranging voluntary contributions from the growers to cover the difference above normal road maintenance. Here human nature stepped in. Several of the growers defaulted on their special donations and thereupon the remainder refused to contribute to the scheme.

Finally the Province of Ontario faced the inevitable and actively intervened in Marsh affairs. It passed The Holland Marsh Roads Act 1944, which created a special road improvement area within the dikes and where a special tax levy could be taken from the growers. The most important sections (5 and 6) provide that notwithstanding The Highway Improvement Act, the Province would pay the proportionate subsidy on the special assessment as outlined in Section 18 of The Highway Improvement Act. Whereas this Act solved the immediate difficulty and resulted in the roads being laid and improved, it is now said to be a hardship upon the growers because although they pay higher taxes than the rest of the taxpayers in the township, they must bear the cost of the maintenance of their roads, normally a charge on the township as a whole.

The problem of roads in the Holland Marsh spanned nearly 20 years and the crux of the difficulty was that the highlands' farmers resented supporting the roads in the lowlands. In retrospect the whole issue over the roads seems illogical when we consider the fact that the reclaimed marsh area is now far more valuable than the larger surrounding highlands, and is a major source of revenue to the townships.

SOILS, CROPS, MECHANIZATION, RESEARCH

Soils

The drainage from the highlands on both sides of the Schomberg and Holland rivers helped to create Holland Marsh. Prior to the reclamation, the Schomberg river was surrounded by a swampy expanse and abounded with marshreed, semi-aquatic flowers and wildlife. Further away from the river was tamarac swamp and beyond this hardwood bush. The soil of the reclaimed land varies as you leave the centre of the development. In the centre it is nearly 60 feet deep, reddish brown with little decomposition, and is extremely fibrous and sponge-like. Away from the centre the soil is mostly peat, while the marginal area containing a high percentage of clay is the most difficult to work, giving the poorest results. Fertility deficiencies common to the entire marsh are copper, boron, phosphates and manganese, while nitrogen is abundant. Actually, the marshland is not "soil". It is a vast fibrous sponge with a remarkable ability for absorbing and holding nutrients and fertilizers forced into it by man.

Submerged decayed trees contribute highly to the valuable fibrous nature of the soil, but without man's assistance and ingenuity, the area would have little fertility.

After the reclamation the land gradually became divided into small parcels, some only five acres in extent. These excessively small lots have had a far-reaching effect. With such small acreage the growers cannot afford to rotate their crops, let the land lie fallow, or plough in a field of clover periodically, so as to replenish the fibre in the soil. This practice, as well as the harmful custom of burning roots taken from the earth, instead of crushing them and plowing them in, is rapidly exhausting the fertility of the land. There is a serious need for an overall land policy which would include the checking of this dangerous trend.

In the early days of the development, the black muck soil was highly prized and all growers tried to increase their holdings of this type of land. Later on it was realized that the lighter peat land in the centre of the Marsh area was far more productive and immediately the interest shifted. In burning piles of roots on this peat land, the danger of fire should not be overlooked. Fires in peat land rapidly spread underground and are extremely difficult to check. The preservation of this soil from fire, and the facilities for fire protection on the Marsh should bear serious consideration.

Crops

In 1930, Professor Day made an encouraging report on his first marsh crops to the townships of King and West Gwillimbury. He indicated that he had a return of \$350.00 an acre on 37 acres. However, the same report showed that operating costs nearly equalled the profits gained. Today there are 5,698 acres actually bearing crops worth \$1,000.00 an acre.

The five major crops are onions, lettuce, potatoes, carrots and celery. The Marsh is a veritable lettuce paradise and over 15% of the acreage is reserved for lettuce production. This is partially explained by the fact that marsh temperatures are usually 12 degrees below the Toronto level, for the cold air settles in this hollow. Lettuce is a cold air crop and it thrives in this low temperature pocket.

Mechanization

To maintain its high production, Holland Marsh is one of Canada's most mechanized agricultural districts, a horse being a novelty. A recent survey on a sample section of 430 acres revealed that there were 190 pieces of operating machinery and that this included 27 tractors, 13 garden tractors, 16 ploughs, 14 cultivators and 23 discs.

This immense investment in machinery is partially explained by the on-the-hour harvesting required in market gardening, which precludes the sharing of equipment in the communal manner prevalent in grain growing. However, it is also because these 5,698 acres are being worked by 500 growers. This division of the marsh soil into small plots means that machinery working one holding is wastefully duplicated by a separate grower working the adjacent plot.

Research

To provide the growers with advice on soil preservation and crop rotation and to conduct experiments the Ontario Agricultural College has established a research station on the marsh under the direction of Mr. C. Filman. In time it is hoped to solve some of the problems peculiar to production on reclaimed land.

Photograph — Toronto and York Planning Board.



Irrigating the land by pumping (or syphoning) the water from the ditches connecting with the drainage canal.

Photograph — Toronto and York Planning Board.



Piles of roots removed from newly broken land.

MARKETING

Early Marketing

Until recent years, rugged individualism was the keynote of marsh farming and marketing. Every grower was in competition with his neighbor and beneficial co-operation was practically unknown. It was considered shrewd dealing to try to harvest one's own crop a day ahead of the majority and then to race a truck to the Toronto market to capture the highest price.

This spirit of competition produced many evils. It compelled every grower to try to be an expert on drainage, production and marketing to the detriment of all three. The growers, lacking co-operative shipping and storage facilities, were entirely dependent upon local markets and this meant selling their produce in wayside stands or through the commission houses in Toronto. Both had their disadvantages. The wayside markets were in most cases dilapidated buildings where marsh produce, ungraded as to quality or price was poorly displayed. Moreover, these stands and the parking areas around them (as well as the storage and processing plants), utilized precious acres of productive marsh land. In being located on a busy highway they were a serious traffic hazard. On the other hand, the growers were faced with serious difficulties in selling through commission markets. Having their total assets dependent upon the sale of a perishable crop they could be made or ruined in a day by market fluctuations. It was felt that the commission houses selling on a 12½% commission had nothing to lose. Either a grower accepted their terms or he was thrown back on the remaining limited market. Anyway there was always another competitive grower willing to accept the prices offered. The inevitable result was that they lived in an insecurity which tightened the vicious circle of cut-throat competition, limited markets and low prices.

This method of marketing is still the subject of bitter feelings on the part of the growers. Recently the price at which lettuce was sold on the commission market varied from 75¢ per crate to \$3.50 per crate within a few hours.

Another result of non-co-operation was the lack of effective publicity to make the excellence of marsh produce known, and to secure additional and more distant markets.

Marketing Today

In 1946, there was a definite swing away from harmful competition to co-operation. The Bradford Co-operative Storage Limited was formed by 150 of the 500 growers, and it built a large cold storage plant. Of this cost the growers themselves contributed 40%, the Federal Government gave 30% and the Province loaned the remainder under the provisions of The Co-operative Marketing Loan Act. This only provided co-operative cold storage for a limited number, but provisions were made for future expansion. Co-operative marketing was still for the future, but the trend was definitely to co-operation. The plant can store for example, 50,000 crates of celery in cold storage, and celery, which previously had to be shipped to the almost monopolistic Toronto market, now finds a ready market from Halifax to Saskatoon.

Last season for the first time the Bradford Co-operative offered facilities for co-operative marketing, although the practice of co-operative purchasing had been adopted earlier. Each of the members had the option of having his produce graded and sold by the management, and those who participated were enthusiastic about the success of the plan. However, this is but a step in the right direction.

Photograph — Department of Planning and Development.



Cleaning, sorting and crating of Marsh celery at the plant of Holland River Gardens Co., Bradford.

Photograph — Department of Planning and Development.



Icing and crating lettuce for refrigerated shipment from Holland River Gardens Co. plant.

The Holland River Gardens Co.

Also in 1946, the Holland River Gardens Company, an ice-packing plant commenced operation. This new venture enabled the shipment of Marsh vegetables in a "garden fresh" condition to far distant centres where prices were most favourable, thereby easing the cut-throat competition inherent in restricted local markets. The success story of this enterprise is of the highest significance for it provides a proven pattern of production and marketing that could be most profitably applied to the entire Marsh.

The three Horling brothers arrived on the Marsh in the lean years of the 30's with only \$600.00 in their combined pockets, and now they own this ice-packing plant worth half a million dollars. They worked on a system which has proven to be a huge success — co-operation and specialization. Painful experience had shown that the efforts of each grower to be authority in both growing and marketing produced dismal results. Therefore, they co-operated, dividing their labours with each becoming a specialist in his own field. Thus, one brother was in complete charge of production and mechanical equipment, another in charge of personnel and the third devoted all his efforts to efficient marketing. Prosperity proved the merits of their system, and by 1940 they were the largest landowners on the Marsh. They began to look beyond the local markets.

George Horling, the youngest brother and the marketing expert, became convinced that somewhere in Canada there was always a good market for marsh produce. He believed that success would crown any enterprise which could facilitate transportation of their vegetables "harvest fresh" to dinner tables across Canada. This would free them from the uncertain profits of the Toronto market. The other brothers became converted to this conclusion and in 1946 the Horlings risked their life savings in building their modern ice-packing plant. Now their produce, packed in powdered ice, would stay fresh until it reached the distant markets.

The results exceeded their highest hopes. Within two years their ice-packed vegetables were on sale in every province across Canada, in the Eastern States and even Hawaii. Their faith was confirmed for wherever they shipped, the consumers preferred "Marsh" produce. Today, for example, in New York City, Marsh lettuce earns a premium of 50¢ a case over the best American lettuce.

Where are the market limits? The marketing expert of the Holland River Gardens Company has the answer — "Our problem is not over-production, but under-production. This Company has a standing order to supply Detroit with 1,500 cases of lettuce a day, when and if we can guarantee shipment. Then there is New York City — we could ship a trainload of vegetables a day to this huge consumer market equalling that of all Canada. It is only 22 hours trucking distance from the Marsh, whereas our nearest big competitor — California, is 3,000 miles away. Here again, lack of continuous supply is the obstacle. With sufficient production our markets are unlimited."

Here is a potential export trade which cannot be over-emphasized in a country in need of American dollars.

New Trends

The new highway crossing the west side of the Marsh will soon afford the growers easy access to the markets of southern Ontario. A large co-operative wayside market with adequate parking space should be planned for this highway, but it should be located on the highlands, not on the valuable marsh land, and planned for easy access without danger from fast moving traffic.

The Holland River Gardens Company could be but the mere forerunner of diversified industries creating new outlets for marsh produce. Deep-freezing might give North America garden fresh greens all year round. The reduction in bulk and the assurance of cool freshness would enable this produce to travel by air to far flung markets. Canneries would offer another large field for Holland Marsh vegetables, for this form of easy storage is ever popular with the housewife. Finally, the world is seeing an increased use of palatable dehydrated foods and this processing form might well offer another market outlet to the growers of the Marsh.

More attention to marketing aids will add to the Marsh's future. Packing and packaging will play their parts in presenting the Marsh produce to the public in attractive, sanitary and convenient form. Consumer packaging will make deliveries directly from the Marsh to the retail store possible. The Horling brothers cellophane wrapped, shredded vegetables, all ready for the salad bowl is typical. Advertising will make its products known all over the continent. Increasing knowledge of good nutrition will create a greater demand for its vitamin rich vegetables.

If the markets are expertly exploited, Marsh produce can compete anywhere. To quote George Horling, "The Marsh can grow greater quantity and better quality for lower costs than any other competitive area on the continent".

INVESTMENT RETURN

Any judgment upon the wisdom of developing the Marsh must finally rest on cold figures. The following calculations are based on careful and conservative estimates. These approximations offer an outstanding proof that the original development cost of \$137,000, defrayed by township debentures has certainly reaped a golden harvest and correspondingly great credit is due to these municipalities for their foresight and courage in underwriting the scheme.

As mentioned, the 1949 gross production value of the Marsh has been estimated by the Department of Agriculture at \$5,500,000 on 5,698 acres. Even assuming that the original \$137,000 outlay finally grew to \$300,000, this indicates that on an original investment of \$50.00 per acre by the townships, there is now a gross yearly return of approximately \$1,000 per acre to the landowners. Over the period of twenty years since the reclamation, the gross production value of the Marsh has been at least \$40,000,000.

Taking the township records of West Gwillimbury, as being representative of the whole development (and not including taxes collected to reduce the debenture issue) the increase in tax revenue over the years is remarkable. In 1920 this marsh area was assessed at less than

\$1.00 per acre. Today it is assessed at well over \$100.00 per acre. The marsh area yields more than twice as much per acre to the tax rolls, as does the highland acreage. The tax yield per acre on marsh land is \$2.80, whereas on the highlands it is \$1.16. In contrast to 1929 when the entire Marsh paid only \$800.00 in taxes to the township, it now pays \$16,000.00 or twenty times as much.

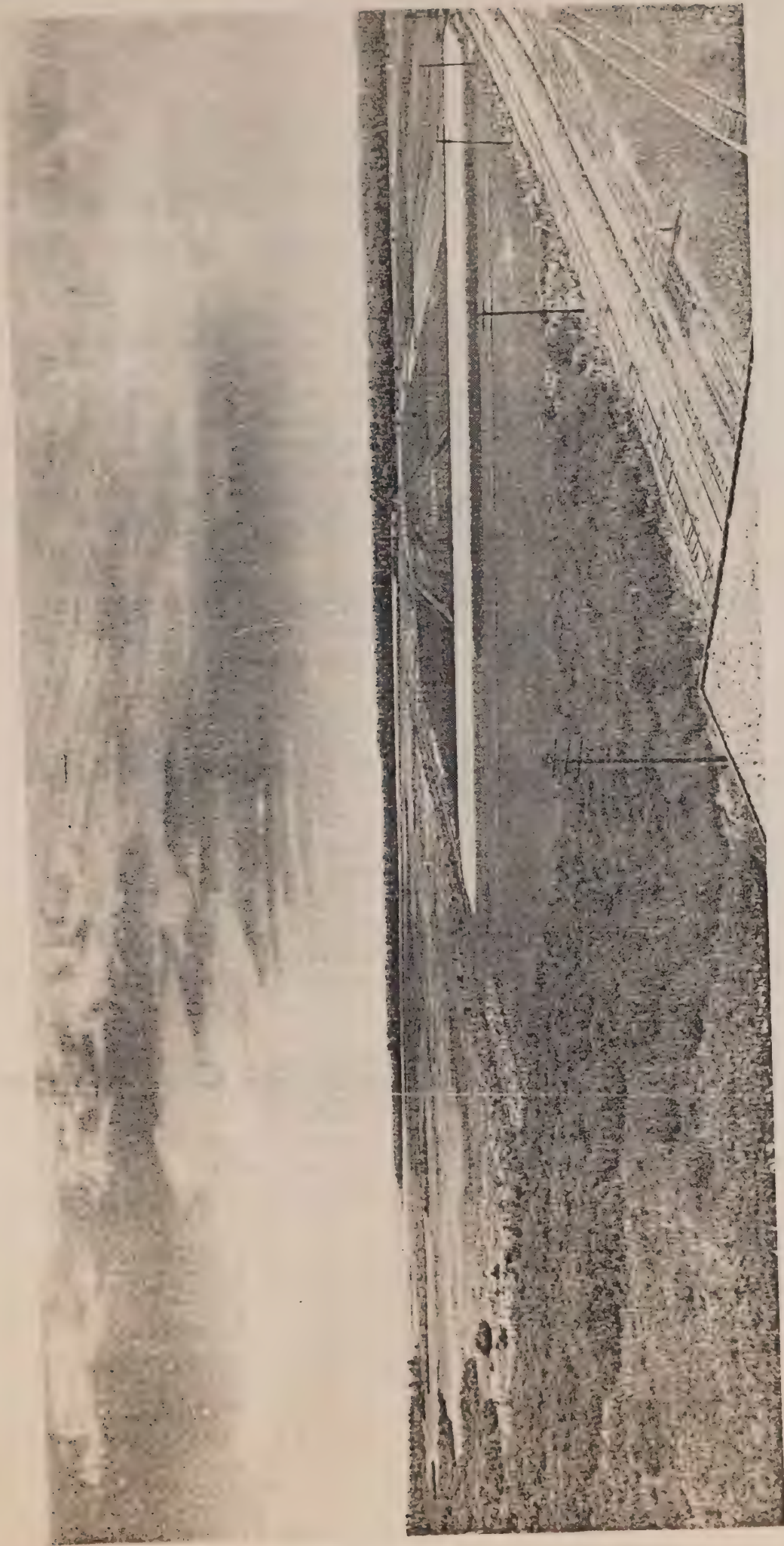
Aside from the immediate tax return, the reclamation of the Marsh has been a tremendous factor in the rejuvenation of a wide area from Barrie to Aurora. It has provided employment and wages for a large agricultural labour force, both permanent and transient. Bankers and professional men have found a new outlet for services. The retailer in Newmarket, Aurora, Bradford and Barrie has benefitted by supplying the grower with his varied needs. The townships as a result of this new and increasing tax income are in a sound financial position. Even the Provincial and Federal Governments have reaped additional revenues from the prosperity of the Marsh.

THE FUTURE

The future of Holland Marsh rests in the hands of the growers. The maintenance of the present value of production and the future growth of this remarkable area will only be fully realized through the landowners acknowledging their common problems and using their combined operating intelligence to solve them. The trend towards co-operation should continue and the growers should realize that by pooling some of their efforts and resources they can all benefit.

An active and progressive growers' association, supported by a large majority could achieve wonderful results in many fields. It could promote the use of sound agricultural practices to conserve the fertility of their land, such as the rotation of crops, the use of fertilizers and the conservation of the fibre in the soil. It could support research to combat crop pests and blights, develop new strains of vegetables and new methods. It could promote co-operative storage and marketing and support market research into new products, new markets and new merchandising methods. It could develop new industries. It could establish a contributory fund to purchase expensive mechanical equipment for common use, and it could hire the services of experts on drainage, production and marketing. Finally it could finance research, advertising and public relations.

In short the growers with their vision and co-operation can protect their investments and increase their assets.



Photograph — Department of Planning and Development.

An interesting panorama taken from the roof of the Co-operative Packing Plant, Bradford, which shows the New Marsh extending north-east from No. 11 highway to Lake Simcoe. This is the area awaiting development.

PLANNING THE RECLAMATION OF THE NEW MARSH

The outstanding success of the reclamation of the marsh indicates that the time is opportune to reclaim and develop the New Marsh — the 13,000 acres extending north-east from the Canadian National Railway line up to Lake Simcoe. There is every reason to believe that this section of Holland Marsh, when developed will be just as productive as the area now reclaimed. Present export markets and those awaiting future exploitation offer both domestic and American dollar outlets for increased Marsh production. Additional acreage made available by this development would give Holland Marsh an approximate total of 20,000 acres yielding \$20,000,000 per year in value of production — or more than all the industries in Aurora, Barrie, Bradford and Newmarket combined.

The 13,000 acres on the New Marsh are privately owned and with the exception of 500 acres which have already been reclaimed by their owner, the entire area is in the same condition as the Old Marsh was in 1925. Geographical conditions different from those on the Old Marsh might require a new reclamation technique.

In reclaiming the Old Marsh, the principle used was one of rerouting the river water around the development by means of the main canals and using the original river bottom with the aid of pumps to drain the land. This method had the advantage of utilizing the marginal lower grade lands for canals, dikes, and dike roads. In the New Marsh, the riverbed is higher and the clay which underlies the fibrous soil is nearer the surface. On the 500 acres recently reclaimed the river level has been maintained and the drainage water has been pumped from the cross ditches into the river. This method has two disadvantages. The canals, dikes and dike roads are being constructed in the highgrade land in the centre of the area, rather than in the lowgrade marginal land, thus reducing the potential productive acreage. In addition this drainage technique if extended to cover the whole area might result in the marginal sections being deprived of an adequate water supply and the waste of a large proportion of the land.

Surely the landowners and the townships concerned need no other incentive to fully support the development of this New Marsh, than the tremendous success of the reclaimed 7,000 acres to the south-west. The initiative must be taken by the townships and the landowners. Then the Provincial Government can give leadership to the project and offer those services already available from its various Departments — Agriculture, Public Works, Highways, Education, Planning and Development, etcetera.

The difficulties encountered in the development of the presently settled area of the Holland Marsh demonstrate more than anything else the vital necessity of reclaiming the New Marsh in accordance with an overall plan. Already 500 acres have been developed privately and further unrelated independent schemes will make such a plan impossible. Decisive action is required now to implement such a plan before the piecemeal unco-ordinated patchwork of small private developments prevents its institution.

Fortunately, the machinery for initiating such a scheme is already available in existing legislation which is in common use today. The Planning Act of 1946 provides for a board to help the municipalities devise a satisfactory plan. The Conservation Act of 1946 can create an "authority" which can actually put the plan into practice and proceed with the engineering; and in fact the first steps towards the formation of a Conservation Authority have already been undertaken by the townships concerned — East and West Gwillimbury and King. Another means of actually implementing the plan is contained in The Drainage Acts of Ontario. On a more detailed level. The Highway Improvement Act, R.S.O., 1937, aids the building and maintenance of roads. Schools are assisted by the General Legislative Grants, and the Co-operative Marketing Loans Amendment Act 1946, aids the building of cold storage and processing plants.

The following four steps might provide a pattern for carrying out the plan:

- (1) Make a comprehensive survey to determine the advisability of reclaiming the New Marsh. Estimate its soil value, arable acreage and potential value of production.
- (2) Prepare an overall plan on drainage, land sub-division, road allowances, community planning, agricultural policy and industrial development.
- (3) Appoint a competent, properly constituted representative board or authority to implement the plan.
- (4) See that the plan is successfully completed and supervise its continuing efficient operation.

Impartial leadership, plus the financial assistance provided for under existing legislation should constitute the contribution of the Province of Ontario. The relevant townships should underwrite debentures to defray the initial costs of the project. Finally, the proven fact that the landowners can expect a large return on their investment indicates that over a period of years they should reimburse the townships for the initial financing.

* * * * *

A canny Bradford grocer and a foresighted college professor could see in "a mere ditch swarming with bullfrogs and water snakes", the makings of a great development which has become Canada's foremost market garden. The townships backed their vision with financial support and have reaped a golden harvest. Their pioneering has provided a proven pattern for developing the New Marsh. Now is the time for action!

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E.W.B.

S.G.S.

INNISFIL TP.

HOLLAND

MARSH

LAKE SIMCOE
(COOK BAY)

GWILLIMBURY N. TP.

CANADIAN
NATIONAL

NEW
HIGHWAY

11

GWILLIMBURY W. TP.

GWILLIMBURY E. TP.

BRADFORD

86

(NOT
COMPLETE)

RAILWAY

SIMCOE COUNTY

CANAL

SIMCOE COUNTY
YORK COUNTY

DRAINAGE

CANAL
DRAINAGE

YORK COUNTY

KING TP.

NEWMARKET

WHITCHURCH

11

RECLAIMED LAND

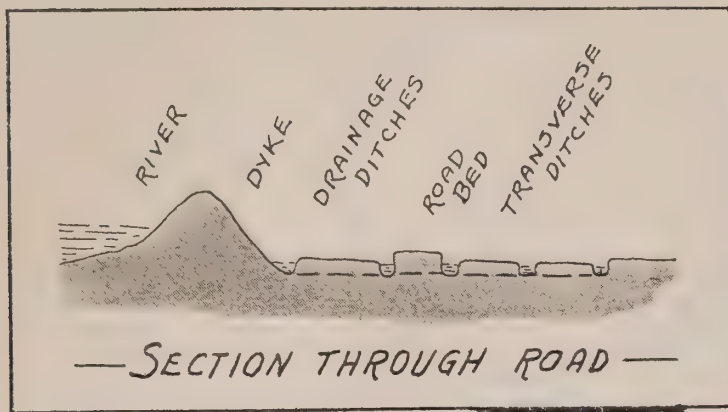
UNRECLAIMED LAND

TOWNSHIP LINE

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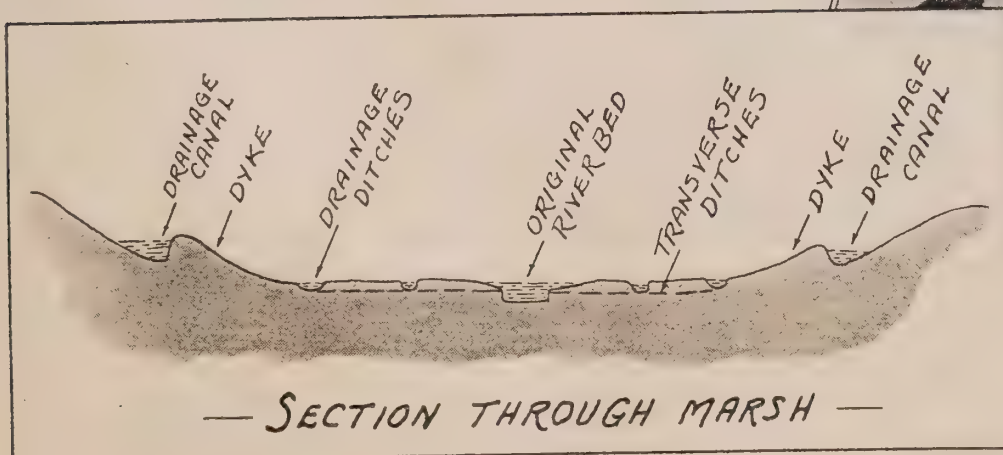
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NEW MARSH



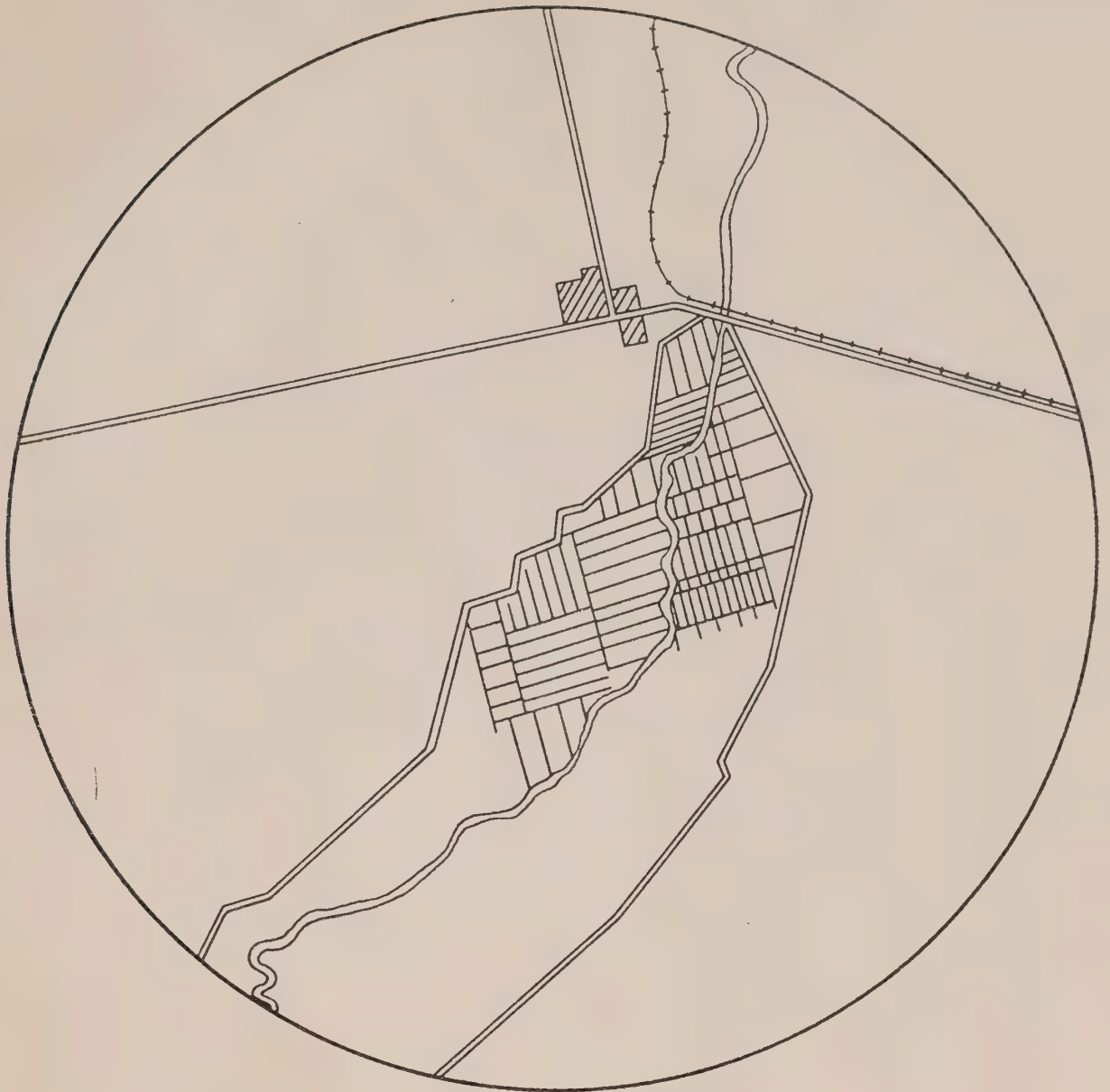
CROSS SECTIONS OF DRAINAGE SYSTEMS

OLD MARSH



LAKE SIMC

BATHURST STREET



OLD MARSH
PATTERN OF LAND HOLDINGS
AND DRAINAGE DITCHES

